
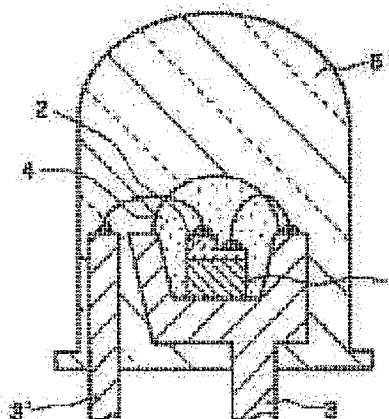


**NITRATE SEMICONDUCTOR LIGHT EMITTING DIODE****Publication number:** JP8335719 (A)**Publication date:** 1996-12-17**Inventor(s):** NAKAMURA SHUJI; UMEMOTO HITOSHI; YAMADA TAKAO**Applicant(s):** NICHIA KAGAKU KOGYO KK**Classification:****- international:** **H01L33/00; H01L33/00;** (IPC1-7): H01L33/00**- European:****Application number:** JP19950140967 19950608**Priority number(s):** JP19950140967 19950608**Also published as:** JP3271645 (B2)**Abstract of JP 8335719 (A)**

**PURPOSE:** To prevent the exfoliation of electrodes and the breaking of wires of a light emitting chip by setting the specific gravity of a first sealing material larger than that of a second sealing material and lowering the forward voltage of the light emitting chip than the forward voltage of it at an initial use.

**CONSTITUTION:** The nitrate semiconductor layer 2 of a double hetero-structure is deposited on a sapphire substrate 1 by an MOCVD method. Many light emitting chips, with which anode electrodes and cathode electrodes are formed, are prepared on the same surface side of the nitrate semiconductor layer 2. Transparent silicone resin 4 (specific gravity is 1.10) is injected into the inside of the cup of a frame 3.; After the injection of the silicone resin, lead frames 3 and 3' are immersed in the molding die inside which epoxy resin 5 (specific gravity is 1.80) is injected in advance, the resin is cured after removing the die and the LED of an artillery shell shape is made. With this, the forward voltage is lowered so that power consumption is lowered, when the light emitting device is completed.



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